

ABSTRACT OF THE DISCLOSURE

An optical signal processor comprises fiber collimators, a first diffraction grating device, a second diffraction grating device, a first half-wave plate, and 5 a second half-wave plate. Each of the diffraction grating devices is of reflection type having a diffracting surface parallel to a  $yz$  plane and a grating direction parallel to a  $z$  axis. The diffraction grating device diffracts the light outputted from the fiber collimator after collimation. The 10 diffraction grating device diffracts the light diffracted by the diffraction grating device. The half-wave plates having respective optic axes in directions different from each other by 45 degrees are bonded together and are disposed on an optical path between the diffraction grating devices.